AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of the claims:

Listing of Claims:

1.   (Currently Amended)   In a system including a service that is accessed by a user from one or more devices with varying input capabilities, a method for associating multiple credentials with a single user account such that the user may be authenticated with any one of the multiple credentials, the method comprising an authentication system performing acts of:

receiving an authentication request at the authentication system from a device, wherein credentials of the user are included in the authentication request;

validating the credentials provided by the user, wherein the credentials are associated with a single unique user identifier of the user, a user account, and a user profile;

receiving new credentials from the user, wherein the new credentials are associated with the same unique user identifier of the user, user account, and user profile; and

storing the new credentials in a credential store of the authentication system such that the authentication system can authenticate the user to the service when the user provides any one of the multiple credentials associated with the user account; and

providing, in response to the request, the unique user identifier and the user profile to the device.

2.   (Currently Amended)   A method as defined in claim 1, wherein the authentication system is a distributed authentication system, wherein the act of receiving an authentication request at the authentication system further comprises an act of determining where to send the credentials for validation.

3.   (Original)   A method as defined in claim 2, wherein the act of determining where to send the credentials for validation uses a username of the credentials.

4.   (Currently Amended)   A method as defined in claim 1, wherein the act of receiving new credentials from the user further comprises an act of symmetrically associating the new credentials with a <u>unique</u> user identifier.

5.   (Currently Amended)   A method as defined in claim 4, wherein the act of symmetrically associating the new credential with a <u>unique</u> user identifier further comprises an act of associating the new credentials with a user account.

6.   (Currently Amended)   A method as defined in claim 4, wherein the act of symmetrically associating the new credential with a <u>unique</u> user identifier further comprises an act of caching a copy of the <u>unique</u> user identifier with the new credential.

7.   (Currently Amended)   A method as defined in claim 1, wherein the act of receiving new credentials from the user further comprises an act of asymmetrically associating the new credentials with a primary credential, wherein the primary credential is stored in a primary store with the <u>unique</u> user identifier.

8.   (Original)   A method as defined in claim 1, further comprising one or more of:

a step for remembering which credential was received in the authentication request;

a step for prompting the user for a more secure credential when the credentials received in the authentication request do not meet security requirements of the service; and

a step for providing at least one security measure for each credential associated with the user account, wherein the user is not authenticated to a service if the security measure of a particular credential is breached or the user account is locked.

9.   (Currently Amended) In a system that includes multiple services that are accessed by a user over a network such as the Internet, wherein the user accesses the multiple services from one or more devices that have varying input capabilities, a method for accessing a service from a device, the method comprising acts of:

provifing multiple credentials to an authentication ~~service~~system, wherein each of the multiple credentials is associated with a user account, a unique user identifier and a user profile that is maintained by the authentication system;

requesting access to a service using a device included in the one or more devices, wherein the service requires that the user be authenticated before access to the service is granted to the user, wherein the device is redirected to the authentication system;

selecting an access credential to send to the authentication system from the multiple credentials and entering the access credential in the device;

issuing an authentication request to an authentication system, wherein the authentication request includes the access credential selected by the user;

receiving an authentication response from the authentication system, wherein the authentication response includes [[a]] the unique user identifier that authenticates the user to the service if the access credential is validated, the response also including the user profile; and

sending an authenticated request to the service, wherein the authenticated request includes the unique user identifier and user profile such that access to the service is obtained.

10.   (Original)   A method as defined in claim 9, wherein the act of selecting an access credential to send to an authentication system from multiple credentials further comprises an act of selecting the access credential according to an input capability of the device.

11.   (Original)   A method as defined in claim 10, wherein the access credential is a numerical credential when the device has numerical input.

12.   (Currently Amended) A method as defined in claim 9, ~~wherein the service requires a specific level of security,~~ the method further comprising:

an act of requiring the user to provide a secure credential to the authentication system that is more secure ~~that~~ than the access credential; and

an act of providing the service with a level of security of the secure credential and of the access credential, wherein the service is unaware of both the selected credential and the secure credential.

13.   (Currently Amended) A method as defined in claim 9, wherein the authentication system is a distributed system and wherein some of the multiple credentials are stored on different credential stores, wherein the act of providing multiple credentials to an authentication service further comprises one or more of:

a step for symmetrically associating the multiple credentials with [[a]] the unique user identifier, wherein the use identifier is cached with each of the multiple credentials;

a step for symmetrically associating the multiple credentials with a user account, wherein a user account is cached with each of the multiple credentials and

an step for associating a security measure with each of the multiple credentials, wherein the user is not authenticated to a service if the security measure of a particular credential is breached or the user account is locked.

14.   (Currently Amended)   A method as defined in claim 9, wherein the authentication system is a distributed system and wherein some of the multiple credentials are stored on different credential stores, wherein the act of providing multiple credentials to an authentication service further comprises an act of asymmetrically associating the multiple credentials with a primary credential, wherein the unique user identifier is stored with the primary credential.

15-21.   (Cancelled)

22.   (Currently Amended)   ~~In an environment including a user that accesses multiple services with one or more devices that have varying input capabilities, a method for an authentication system to authenticate the user to each of the multiple services, the method comprising the authentication system performing steps for:~~

~~receiving an access credential from the user, wherein the access credential is associated with a user account that includes a user identifier and wherein the access credential has a security level;~~

~~determining, from the access credential, a credential store that stores a master credentials that is used to validate the access credential;~~

~~validating the access credential at the credential store with the master credential;~~

A method as recited in claim 1, wherein the new credential has an associated security level and wherein the method further comprises:

associating the ~~one or more~~ new ~~credentials~~ credential with the user account such that the user can be authenticated with both the ~~access~~ original credential and the ~~one or more~~ new ~~credential~~credentials~~, wherein each of the one or more new credentials has a security level;~~

~~remembering the access credential that was provided by the user; and~~

prior to providing the response, and subsequent to receiving the authorization request, prompting the user for a secure credential that is more secure than the ~~access~~ original credential if the security level of the ~~access~~ original credential is insufficient for a service being accessed by the user, wherein the service is provided with the security level of both the ~~access~~ original credential and the secure credential, but is not aware of either the ~~access~~ original credential or the secure credential.

23.   (Currently Amended)   A method as defined in claim 22, wherein the step for associating ~~one or more~~the new ~~credentials~~credential with the user account further comprises a step for symmetrically associating the ~~access~~original credential and the ~~one or more new credentials~~ new credential with the user account, wherein the user account is cached with each of the ~~access~~original credential and the ~~one or more new credentials~~new credential.

24.   (Currently Amended)   A method as defined in claim 23, wherein the step for associating the new credential~~one or more new credentials~~ with the user account further comprises a step for asymmetrically associating the new credential~~one or more new credentials~~ with a primary credential, wherein the primary credential is associated with the user account and wherein the primary credential is cached with each ~~of the one or more new credentials.~~new credential.

25.   (Original)   A method as defined in claim 22, further comprising a step for automatically authenticating the user at different services after the user has been authenticated at a first service.

26.   (Currently Amended)   A method as defined in claim 22, wherein the ~~access~~original credential is a numerical credential when the device has ~~substantially~~a preferred numerical input.

27.   (Currently Amended) In a system including a service that is accessed by a user from one or more devices with varying input capabilities, a computer program product for implementing a method for associating multiple credentials with a user account such that the user may be authenticated with anyone of the multiple credentials, the computer program product comprising:

a computer readable <u>storage</u> medium <u>storing</u>~~having~~ computer readable instructions for performing the method <u>of claim 1.</u>~~, the method comprising acts of:~~

~~receiving an authentication request at the authentication system from a device, wherein credentials of the user are included in the authentication request;~~

~~validating the credentials provided by the user, wherein the credentials are associated with a user identifier;~~

~~receiving new credentials from the user, wherein the new credentials are associated with a user identifier of the user; and~~

~~storing the new credentials in a credential store of the authentication system such that the authentication system can authenticate the user to the service when the user provides any one of the multiple credentials..~~

28.   (Currently Amended) A computer program product as defined in claim 27, wherein the authentication system is a distributed authentication system, wherein the act of receiving an authentication request at the authentication <u>system</u> further comprises an act of determining where to send the credentials for validation.

29.   (Original)   A computer program product as defined in claim 28, wherein the act of determining where to send the credentials for validation uses a username of the credentials.

30.   (Currently Amended) A computer program product as defined in claim 27, wherein the act of receiving new credentials from the user further comprises an act of symmetrically associating the new credentials with [[a]] the unique user identifier.

31.   (Currently Amended) A computer program product as defined in claim 30, wherein the act of symmetrically associating the new credential with [[a]] the unique user identifier further comprises an act of associating the new credentials with a user account.

32.   (Currently Amended) A computer program product as defined in claim 30, wherein the act of symmetrically associating the new credential with [[a]] the unique user identifier further comprises an act of caching a copy of the unique user identifier with the new credential.

33.   (Currently Amended) A computer program product as defined in claim 27, wherein the act of receiving new credentials from the user further comprises an act of asymmetrically associating the new credentials with a primary credential, wherein the primary credential is stored in a primary store with the unique user identifier.

34.   (Original)   A computer program product as defined in claim 27, further comprising acts of:

remembering which credential was received in the authentication request; and

prompting the user for a more secure credential when the credentials received in the authentication request are not sufficient for the service.

35.   (Currently Amended) In a system that includes multiple services that are accessed by a user over a network such as the Internet, wherein the user accesses the multiple services from one or more devices that have varying input capabilities, a computer program product for implementing a method for accessing a service from a device, the computer program product comprising:

a computer readable medium having computer executable instructions for performing the method of claim 9., the method comprising acts of:

~~providing multiple credentials to an authentication service, wherein each of the multiple credentials is associated with a user account that is maintained by the authentication system;~~

~~requesting access to a service using a device included in the one or more devices, wherein the service requires that the user be authenticated before access to the service is granted to the user, wherein the device is redirected to the authentication system;~~

~~selecting an access credential to send to the authentication system from the multiple credentials and entering the access credential in the device;~~

~~issuing an authentication request to an authentication system, wherein the authentication request includes the access credential selected by the user;~~

~~receiving an authentication response from the authentication system, wherein the authentication response includes a user identifier that authenticates the user to the service if the access credential is validated; and~~

~~sending an authenticated request to the service, wherein the authenticated request includes the user identifier such that access to the service is obtained.~~

36.   (Original)   A computer program product as defined in claim 35, wherein the act of selecting an access credential to send to an authentication system from multiple credentials further comprises an act of selecting the access credential according to an input capability of the device.

37.   (Original)   A computer program product as defined in claim 36, wherein the access credential is a numerical credential when the device has numerical input.

38.   (Original)   A computer program product as defined in claim 35, wherein the service requires a level of security, the method further comprising an act of providing a secure credential to the authentication system, wherein the secure credential is more secure than the access credential and wherein service is unaware of both the selected credential and the secure credential.

39.   (Currently Amended) A computer program product as defined in claim 35, wherein the authentication system is a distributed system and wherein some of the multiple credentials are stored on different credential stores, wherein the act of providing multiple credentials to an authentication service further comprises one or more of:

> an act of symmetrically associating the multiple credentials with [[a]] the unique user identifier, wherein the unique user identifier is cached with each of the multiple credentials; and

> an act of symmetrically associating the multiple credentials with a user account, wherein a user account is cached with each of the multiple credentials.

40.   (Currently Amended) A computer program product as defined in claim 35, wherein the authentication system is a distributed system and wherein some of the multiple credentials are stored on different credential stores, wherein the act of providing multiple credentials to an authentication service further comprises an act of asymmetrically associating the multiple credentials with a primary credential, wherein the unique user identifier is stored with the primary credential.

41.   (New)   A method as defined in claim 1, wherein the same unique user identifier is provided to the user regardless of the credentials received from the user.

42.   (New)   A method as defined in claim 1, wherein different credentials are required from each of the one or more devices.

43.   (New)   A method as defined in claim 1, wherein providing the unique user identifier and the user profile to the device comprises sending a cookie containing the unique user identifier and the user profile to the device.

44. (New)   A method as defined in claim 1, wherein the user profile includes data about the user comprising name, personal information, preferred language, preferences, and location.